AMENDMENT - claims

Please amend the claims, as follows:

1. (previously presented) A method for treating or preventing cardiovascular or cerebrovascular disease in a mammal, comprising administering an agent that alters the activity or concentration of an enzyme in an amount effective to treat or prevent cardiovascular or cerebrovascular disease in a mammal, wherein said enzyme catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

2. (previously presented) A method for treating or preventing an undesirable post-ischemic event in an animal, comprising administering thereto an agent that alters the activity or concentration of an enzyme in an amount effective to treat or prevent an undesirable post-ischemic event in a mammal, wherein said enzyme catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

3. (previously presented) A method according to claim 2 wherein said undesirable post-ischemic event occurs in the heart.

4. (previously presented) A method according to claim 2 wherein said undesirable post-ischemic event occurs in the brain.

5. (previously presented) A method for treating or preventing cardiovascular disease in a human, comprising administering an agent that alters the activity or concentration of an enzyme in an amount effective to treat or prevent cardiovascular disease in a human, wherein said enzyme

catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

6. (previously presented) A method according to claim 5, wherein said sphingolipid or a sphingolipid metabolite is selected from the group consisting of sphingomyelin, sphinogosine, sphingosine-1-phosphate, ceramide, sphingosylphosphoylcholine, 3-ketosphinganine, galactosylceramide, and dihydroceramide.

7. (previously presented) A method according to claim 5, wherein said enzyme is selected from the group consisting of sphingomyelin synthase, sphingomyelin deacylase, sphingomyelinase, ceramidase, sphingosine-1-phosphate phosphatase, sphingosine kinase, ceramide synthase, sphingosine-1-phosphate lyase, cerebrosidase, ceramide-1-phosphate phosphatase, ceramide kinase, sphingomyelin deacylase, serine palmitoyltransferase, and NADPH-dependent reductase.

8. (previously presented) A method according to claim 5, wherein said enzyme is sphingomyelinase.

9-14. (cancelled)

15. (previously presented) A method according to claim 1, wherein said disease is a cardiovascular disease.

16. (previously presented) A method according to claim 15, wherein said cardiovascular disease is a cardiac disease.

17. (previously presented) A method according to claim 15, wherein said cardiac disease is

selected from the group consisting of myocardial ischemia, acute myocardial infarction (AMI), coronary artery disease (CAD); acute coronary syndrome (ACS), cardiac cell and tissue damage that may occur during or as a consequence of pericutaneous revascularization (coronary angioplasty) with or without stenting, coronary bypass grafting (CABG), another surgical or medical procedure or therapy associated with ischemic or ischemic/ reperfusion damage, and cardiovascular trauma.

18. (cancelled)

19. (previously presented) A method for treating or preventing cardiovascular or cerebrovascular disease in a mammal, comprising administering a pharmaceutical composition comprising an agent in an amount effective to modulate the activity of an enzyme that catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

20. (cancelled)

21. (previously presented) A method according to claim 7 wherein the enzyme is sphingomyelinase and the agent is selected from the group consisting of: sphingomyelin derivatives, scyphostatins, manumycin, quinines, ubiquinol, ubiquinones, sphingomyelin methylene, anthracyclines, carnitine, desipramine, alutenusin, SR3357, adriamycins, and roselipins.

22. (previously presented) A method according to claim 7 wherein the enzyme is sphingomyelinase and the agent is selected from the group consisting of an anti-oxidant, ascorbate, alpha-tocopherol, glutathione, desipramine, and DTT.

23. (previously presented) A method according to claim 7 wherein the enzyme is sphingosine kinase and the agent is selected from the group consisting of N, N-dimethylsphingosine, D-threo-dihydrosphingosine, and a sphingoid base.

24. (previously presented) A method according to claim 7 wherein the enzyme is ceramidase and the agent is selected from the group consisting of N-acetylsphingosine, (1S,2R)-D-erythro-2-(N-myristoylamino-1-phenyl-1-propanol, (1S,2R)-L-erythro-2-(N-myristoylamino-1-phenyl-1-propanol, and N-oleoyl-ethanolamine.

25. (previously presented) A method according to claim 7 wherein the enzyme is ceramidase synthase, and the agent is selected from the group consisting of Fumonisin B1, an alternaris toxin, a viridiofungin, and an astralifungin.

26. (previously presented) A method according to claim 7 wherein the enzyme is ceramide –1-phosphate phosphatase, and the agent is selected from the group consisting of sodium fluoride, propranolol, phenylglyoxal, and N-ethylmaleimide.

27. (previously presented) A method according to claim 7 wherein the enzyme is ceramide –1-phosphate phosphatase, and the agent is a cyclopropene ceramide.

28. (previously presented) A method according to claim 7 wherein the enzyme is serine palmitoyl transferase, and the agent is selected from the group consisting of: lipoxamicin, a sphingofungin, an isaria sincairii compound, L-cycloserine, beta-chloro-L-alanine, myriocin, and thermozymocidin.